

Training Course: Machine-to-Machine, Connected Objects & Internet of Things (IoT): Applications, technologies and opportunities

Next training on January 11th & 12th 2017 in Paris.

Contacts us to book your session.

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*Vertical M2M now holds an activity number
as a training organization*

TimeFrame: 2 days*

Languages: French / English

Prerequisite

A basic knowledge in telecommunications and networks will be useful to attend this session.

Attendees

- IT managers and telecom managers interested in understanding the issues of IoT/M2M solutions for their businesses
- Project managers taking part of M2M projects
- Technical teams in charge of telecom deployment or software engineering teams
- Marketing departments

Introduction

After PCs, servers, network devices, fixed and mobiles phones, new equipments and connected objects are now part of your corporate network and will increase in number. The Internet of Things (IoT), also called the web 3.0, will revolutionize usages but also the way to manage telecom infrastructures.

Objectives

This training will help you grasp comprehensively both technical and marketing aspects of M2M. You will learn what is the purpose of M2M, how to implement it as well as how it can become an opportunity and a source of value creation for your company.

Agrément organisme de formation

Vertical M2M holds an activity number as a training organization. We are registered at the DIRRECTE Ile de France under the number 11 75 55 080 75.

Trainer

Maurice ZEMBRA, 45 years old, CEO of Vertical M2M.

Maurice has more than 20 years of experience in telecom and computing industries, in which he has held different technical, commercial and managing roles. He started as a consultant for IBM in France and Italy then became a responsible for key account sales at Cegetel (today's Numéricable /SFR group, France's 2nd telecom operator). In December 1999, he cofounded and led an innovative software vendor company, Active Telecom, in the field of IP telephony market with a turnkey platform (VoIP) for telecom operators and key accounts. Active Telecom was sold in November 2007 to Kertel Telecom.

In February 2008, Maurice cofounded Vertical M2M, an independent software vendor that provides IoT/M2M solutions tailored for the energy, environment and SmartCity vertical markets.

Maurice graduated from Telecom ParisTech as an engineer as well as from Université Paris-IX Dauphine as a postgraduate in industrial economy.

Maurice has an extended experience in several cornerstones of the Internet of Things:

- Telecom infrastructures and M2M technologies
- Information systems and complex services platforms
- Embedded technologies, sensors and connected objects (through deployments and projects led at Vertical M2M)
- Connected Health, Energy/SmartBuilding as well as Smart Cities

Since 2008, he is a frequent speaker at several M2M/IoT events throughout France and the world (mainly UK, Belgium and Italy).

Profil LinkedIn: <https://www.linkedin.com/in/mauricezembra>

Program

Market and applications

- What is Machine-to-Machine (M2M)?
 - Definition,
 - Popular misconceptions and reality
- Typology of applications
 - Telemetry
 - Remote maintenance
 - Remote asset management
- Main usages and target markets
 - Market usages overview
 - Focus on the energy market
 - Focus on the environment sector and "Smart Cities"
 - Focus on the health sector
- Key figures of the M2M market

- Figures and trends
- Value chain and market players
- Main challenges
 - Standards and technological choices
 - End-to-end architectures
 - Regulatory and political impact
 - Economic issues and Return on Investment (ROI)

Technologies in operation

- Introduction to IoT/M2M technologies
- Embedded technologies and connected objects:
 - Typology of equipments for M2M: sensors, actuators, gateways, modems, ...
 - Natively connected equipments
 - Review of constraints
- LAN and PAN radio and wired protocols: a review of the main protocols used in M2M applications and technologies
 - 802.15.4 & Zigbee
 - Zwave
 - Wavenis
 - EnOcean
 - Wifi
 - Bluetooth
 - RFID
 - NFC
 - ISM bands
 - 6lowpan / IP
 - MODBUS, M-BUS, Wireless M-BUS...
 - BMS protocols: Bacnet, KNX...
- Long range telecom technologies:
 - Mobile network (GSM/SMS/GPRS/G/LTE)
 - M2M SIM cards (connectivity, typology of cards mini/rugged/embedded/etc, management...)
 - Geo-location and GPS
 - Unidirectional long range networks (example: SIGFOX)
 - Bidirectional long range networks (example: SEMTECH/Lora)
 - Other long range radio networks: satellite, wireless local loop (Wimax)...
- Server infrastructure and service platforms:
 - M2M services platforms architecture: middleware, device management, billing, provisioning, B.I, data template, web services, API...
- Overview of norms: ETSI TC M2M/OneM2M, IEEE 802.16...

Opportunities and impacts

- Deploy a M2M solution in your company: impact assessment
 - Combine IP and non IP technologies, wired and wireless in your buildings
 - Security and M2M: risks and issues

- Management and monitoring
 - Integration to the company's information system
- Real opportunities for your company
 - New services
 - Productivity
 - Service quality
- Conclusion

Illustrations & demonstrations

- In depth examples of M2M solutions deployment with demonstrations
 - Telemetry solution
 - Asset remote monitoring

*possibility to split the program into 2 1-day sessions, 1 for a general overview and 1 bearing on technical aspects.

Examples of attendees



Vichy Val d'Allier (French City) Information System department

"This training course was perfectly led and fully reached its objectives for us. Thanks to it, we were able to review and better understand all the opportunities related to connected objects. Provided by an expert in the M2M sector, it was really fruitful for us to share his experience with us."